R E M A R K S

Reconsideration of this application is respectfully requested.

Claim 6 was rejected under 35 USC 103 as being obvious in view of the combination of USP 5,539,717 ("Ito et al"), USP 6,115,613 ("Jonsson") and USP 6,463,136 ("Davitt et al"). As explained in more detail hereinbelow, the manner in which the Examiner has applied each of Ito et al, Jonsson and Davitt et al to claim 6 is inconsistent with their respective teachings, and the manner in which Ito et al, Jonsson and Davitt et al have been combined by the Examiner is not logical in view of the respective teachings of the these references.

Claims 11 and 13 were rejected under 35 USC 102 as being anticipated by USP 6,700,961 ("Dacloush et al"). As explained in more detail below, even according to the Examiner's own interpretation of Dacloush et al as stated in the Office Action, Dacloush et al does not disclose, teach or suggest the features of the present invention as recited in independent claim 11 or claim 13 depending therefrom.

Accordingly, it is respectfully submitted that claims 6, 11 and 13 clearly patentably distinguish over the cited references, under 35 USC 102 as well as under 35 USC 103, and it is respectfully submitted that claims 6, 11 and 13, which the

Examiner previously indicated to be allowable, recite allowable subject matter even in view of the references now cited by the Examiner.

Re: Claim 6

Independent claim 6 recites a data communication terminal comprising data communication means for connecting to a communication network, in which accounting is made according to a transmitted/received data amount, to carry out data communication.

According to claim 6, moreover, the communication terminal comprises: means for recognizing a start and an end of transmission/reception of a set of transmitted/received objective data; means for measuring a transmitted/received data amount from the start to the end of transmission/reception of the set of objective data; means for judging whether or not the measured transmitted/received data amount has reached a specified data amount; means for, when it is judged that the measured transmitted/received data amount has reached the specified data amount, warning a user that the transmitted/received data amount has reached the specified data amount; and means for setting an upper limit value corresponding to a maximum allowed data amount for continuous transmission/reception of any set of objective data.

And according to claim 6, the judgment by the judging means is performed such that, when the set upper limit value is reached, it is judged that the transmitted/received data amount has reached the specified data amount, and when transmission/ reception of data is not suspended but continued after it is judged that the transmitted/received data amount has reached the specified data amount, the upper limit value is temporarily increased.

The Examiner contends that the "window counters" provided to user devices 102 to 105 according to Ito et al corresponds to means for recognizing a start and an end of transmission/ reception of a set of transmitted/received objective data.

It is respectfully pointed out, however, that Ito et al actually discloses that the window counters are used to regulate traffic from the user devices. More specifically, each user device has a window counter 305 with an initial value Cwindow (column 10, lines 8-10 of Ito et al). Each time a user device transmits a "cell" (data having the structure shown in Fig. 2 of Ito et al) from a FIFO transmission buffer 306, the value of the window counter 305 is decremented by 1 (column 10, lines 3-4 and 11-17). When the window counter has a value of zero, no data may be transmitted from the user device (column 9, lines 64-65 and column 10, lines 4-5). The window counter is periodically reset

to its initial value by data (a "reset cell") sent from a traffic controller. Thus, according to Ito et al, traffic from a user device is regulated by controlling the frequency at which the window counter is reset. See column 17, lines 8-19 of Ito et al, which explains that by sending reset cells to a user device one-half as frequently as normal (doubling the length of a reset cycle) the data amount from the user device per unit time can be reduced to one-half a normal value, and that by sending reset cells one-third as frequently as normal (tripling the length of a reset cycle), the data amount from the user device per unit time can be reduced to one-third a normal value.

Thus, according to Ito et al, as explained at column 10, lines 14-16, "[t]he counting number indicates how many cells can be transmitted by the user device 101, and becomes initial value (Cwindow) when the down counter is reset" (emphasis added).

It is respectfully submitted that a periodically reset counter indicating how many cells can be transmitted (as disclosed by Ito et al) clearly does not correspond to means for recognizing a start and an end of transmission/reception of a set of transmitted/received objective data and means for measuring a transmitted/received data amount from the start to the end of transmission/reception of the set of objective data as recited in claim 6. Indeed, merely providing a counter to control how much

data may be transmitted clearly does not correspond to recognizing a start and an end of transmission/reception of a set of transmitted/received objective data. And it is respectfully submitted that a periodically reset counter indicating how much data can be transmitted at a given time as disclosed by Ito et al clearly does not correspond to measuring a transmitted received data amount from the start to the end of transmission/reception of a set of objective data.

It is respectfully submitted, moreover, that the window counter of Ito et al does not specify an upper limit count corresponding to continuous transmission or reception of a set of objective data. Instead, the window counter of Ito et al merely regulates an amount of data transmitted in a given amount of time from the user device. Accordingly, it is respectfully submitted that, contrary to the Examiner's assertion at the top of page 6 of the Office Action, the window counter of Ito et al does not correspond to "means for setting an upper limit value corresponding to a maximum allowed data amount for continuous transmission/reception of any set of objective data" as recited in independent claim 6.

In addition to the "window counter" of Ito et al, the Examiner has cited the disclosure of the "cell loss possibility judging unit 120" of Ito et al as corresponding to: (i) means for

judging whether or not the measured transmitted/received data amount has reached a specified data amount; (ii) means for, when it is judged that the measured transmitted/received data amount has reached the specified data amount, warning a user that the transmitted/received data amount has reached the specified data amount; and as disclosing (iii) that the judgment by the judging means is performed such that, when the set upper limit value is reached, it is judged that the transmitted/received data amount has reached the specified data amount.

It is respectfully pointed out, however, that this interpretation of the "cell loss judging unit 120" of Ito et al is completely inconsistent with the actual disclosure of the cell loss judging unit of Ito et al.

More specifically, according to Ito et al the cell loss judging unit 120 includes buffer monitoring circuits 950-980 which monitor the amount of data in the output buffers 116-119, respectively. According to Ito et al, the output buffers 116-119 receive data from various user devices (see Fig. 1). For example, according to Ito et al, the buffer monitoring circuit 950 includes a counter 950a that maintains a count of data in the output buffer 116. The counter is incremented when data is written into the output buffer and decremented when data is read out from the output buffer. When, based on the

information in the counter, it is determined that an output buffer is likely to overflow (thereby causing abandonment of cells), a traffic controller that transmitted a cell from a user device after a threshold (corresponding to likely cell abandonment) has been reached is caused to reduce the amount of data sent through the traffic control. According to Ito et al, the amount of data is controlled by regulating the timing of the resets of the window counters, as explained above. See, for example, columns 13-17 of Ito et al.

The Examiner asserts that the cell loss possibility judging unit 120 of Ito et al corresponds to "means for judging whether or not the measured transmitted/received data amount has reached a specified data amount" as recited in claim 6. The Examiner also asserts that the window counter 305 of Ito et al corresponds to means for measuring the transmitted received data amount.

It is respectfully pointed out, however, that the cell loss possibility judging unit 120 of Ito et al does not perform any judgment based on the count of the window counter 305. That is, according to claim 6, the "means for judging" performs a judgment with respect to the measured transmitted/received data amount that is measured by the "means for measuring" of the communication terminal. The Examiner asserts that the window counter of Ito et al corresponds to the "means for measuring" of

claim 6. However, the cell loss possibility judging unit 120 of Ito et al does not perform a judgment with respect to the count maintained by the window counter 306. Instead, the cell loss possibility judging unit 120 maintains different counters (e.g., counter 950a) to count data in the output buffers, not to count data corresponding to the window counter. Accordingly, even if the window counter of Ito et al corresponded to the "means for measuring" of claim 6, the cell loss possibility counter 120 of Ito et al could not possibly correspond to the "means for judging" of claim 6, because the cell loss possibility counter 120 of Ito et al does not perform a judgment with respect to a count maintained by the window counter (even if the count maintained by the window counter correspond to the recognizing and measuring performed by the "means for recognizing" and "means for measuring" of claim 6, which is not the case, as explained above).

In addition, the Examiner asserts that the upper limit value corresponding to a maximum allowed data amount for continuous transmission/reception of any set of objective data as recited in claim 6 corresponds to the window counter of Ito et al. Even if this assertion were accurate (which is not the case, as explained hereinabove), Ito et al still clearly would not disclose, teach or suggest that the judgment by the judging means is performed

such that, when the set upper limit value is reached, it is judged that the transmitted/received data amount has reached the specified data amount. That is, the cell loss possibility judging unit of Ito et al does not perform a judgment that a data amount through a traffic controller must be regulated when the window counter creates a certain value. By contrast, as noted above, the cell loss possibility judging unit of Ito et al maintains different counts that do not correspond to the window counter. Accordingly, even if the window counter of Ito et al were the "upper limit value" recited in claim 6, Ito et al still would not disclose judging that a transmitted/received data amount has reached a specified amount (thereby prompting warning a user) when the window counter reaches a specified value.

Still further, the Examiner asserts that the cell loss possibility judging unit 120 of Ito et al corresponds to "means for, when it is judged that the measured transmitted/ received data amount has reached the specified data amount, warning a user that the transmitted/received data amount has reached the specified data amount." However, as explained above, the cell loss possibility judging unit 120 of Ito et al merely causes regulation of a data amount from a user device when cell abandonment is likely. That is, the cell loss possibility judging unit 120 of Ito et al does not warn a user as recited in claim 6.

In summary, it is respectfully submitted that the window counter and cell loss possibility judging unit of Ito et al (that is, the portions of Ito et al cited by the Examiner) do not correspond to any of the features of the present invention as recited in independent claim 6.

The Examiner acknowledges on page 6 of the Office Action, moreover, that Ito et al does not disclose data communication in which accounting is made according to a transmitted/received data amount. For this reason, the Examiner has cited Jonsson to supply the missing teaching of Ito et al.

Jonsson discloses that a group of users may share a single contract for a mobile radio telephone network, and Jonsson discloses limiting the number of traffic channels that may be occupied simultaneously by the members of the group. As recognized by the Examiner, moreover, Jonsson discloses rejecting a call attempt by a member of the group if the member, or the collective of members, have exceed a threshold of allowable airtime or a threshold of allowable charges for the member or the group.

However, while Jonsson recognizes that users are charged for airtime on a telephone network, Jonsson does not disclose, teach or suggest any of the other structural features of the present invention as recited in independent claim 6.

Finally, the Examiner acknowledges on page 6 of the Office Action that Ito et al and Jonsson, even in combination, fail to disclose the feature of the present invention as recited in claim 6 whereby when transmission/reception of data is not suspended but continued after it is judged that the transmitted/received data amount has reached the specified data amount, the upper limit value is temporarily increased. For this reason, the Examiner has cited Davitt et al to supply the missing teachings of Ito et al and Jonsson.

It is respectfully pointed out, however, that the Examiner's suggested modification of Ito et al is contrary to the invention of Ito et al, and it is respectfully pointed out that it is not logical to suggest that teachings of Davitt et al of providing supplemental payment when a prepaid calling balance is nearly depleted should be applied to the regulation of data cells in an output buffer as taught by Ito et al.

That is, Davitt et al discloses that when a pre-paid balance is nearly depleted, the user is permitted to continue a call by manually entering a calling card account number or credit card number for additional billing, or the user may permit automatic billing of a credit card to be performed.

It is respectfully submitted that the Examiner's stated motivation to combine Davitt et al with Ito et al ("to provide

for a combined calling card and pre-paid service that allows for call budgeting, yet affords the flexibility to exceed a budgeted amount of service," see page 7 of the Office Action) bears no relation to the invention of Ito et al, which is directed to avoiding cell abandonment due to overflow of an output buffer in a switch device for exchanging data among ring networks. That is, it is respectfully submitted that if an output buffer is likely to overflow, thereby resulting in cell abandonment (the problem addressed by Ito et al), inputting a credit card number or otherwise providing additional money to continue a call (the solution cited by the Examiner in Davitt et al) would not be a logical solution. Accordingly, it is respectfully submitted that one of ordinary skill in the art clearly would not be motivated to turn to Davitt et al to modify Ito et al.

In addition, it is respectfully pointed out that according to Ito et al, when an upper limit/threshold value is reached, a data amount flow must be reduced to prevent cell abandonment. Thus, it is respectfully submitted that Ito et al teaches way from temporarily increasing a threshold when cell abandonment is likely. And it is respectfully submitted that the Examiner's suggestion that it would be obvious to increase threshold of Ito et al is contrary to the clear teachings of Ito et al.

Accordingly, it is respectfully submitted that Davitt et al is not properly combinable with Ito et al to achieve the feature of the present invention as recited in independent claim 6 whereby when transmission/reception of data is not suspended but continued after it is judged that the transmitted/received data amount has reached the specified data amount, the upper limit value is temporarily increased.

In view of the foregoing, it is respectfully submitted that independent claim 6 clearly patentably distinguishes over the combination of Ito et al, Jonsson and Davitt et al under 35 USC 103.

Re: Claims 11 and 13

According to the present invention as recited in independent claim 11, a data communication terminal comprises means for carrying out data communication via a communication network selected between a communication network where accounting is made according to a data amount and a communication network where accounting is made according to connection time.

According to claim 11, moreover, the data communication terminal comprises: means for setting a limit amount of a communication charge; means for calculating the communication charge required for data communication in real time according to

the selected communication network; and means for judging whether or not the calculated communication charge has reached the limit amount of communication charge.

And according to claim 11, the data communication terminal comprises means for, when it is judged that the calculated communication charge has reached the limit amount, warning a user that the calculated communication charge has reached the limit amount; and means for, when the calculated communication charge has reached the limit amount, (i) temporarily suspending transmission/reception of data when connected to the communication network where accounting is made according to the data amount, and waiting for an instruction to resume or terminate connection from a user, and (ii) terminating transmission/reception of the data to be transmitted/received without waiting for the instruction from the user when connected to the communication network where accounting is made according to the connection time.

Thus, claim 11 is directed to a communication terminal which executes data communication using a selected one of a communication network in which charging is executed based on the data amount and a communication network in which charging is executed based on the connection period (time). According to claim 11, when the communication charged has reached a limit amount, the user is warned that the calculated communication

charge has reached the limit amount, and when the communication terminal is connected to the communication network in which charging is executed on the basis of the data amount, transmission/reception of data is temporarily suspended and an instruction from the user to resume or terminate the connection is awaited. On the other hand, when the communication terminal is connected to the communication network in which charging is executed on the basis of the connection period (time), transmission/reception of data is terminated without waiting for the user's instructions.

By contrast, Dacloush et al discloses an invention relating to a prepaid calling card. According to Dacloush et al, charging to a prepaid account is made based on the connection time (e.g., at a rate of 10 or 15 cents per minute). When the calling card amount nears zero according to Dacloush et al, the caller is given an opportunity to increase the amount of money in the prepaid account so as to continue the call. And according to Dacloush et al, if additional payment is provided, after providing the caller with an opportunity to provide payment, the calling card is allowed to be depleted and then the call is terminated.

It is respectfully submitted that this structure of Dacloush et al clearly does not correspond to the structure of the present invention as recited in independent claim 11.

In particular, it is respectfully pointed out that Dacloush et al clearly does not disclose, teach or suggest means which performs a different action when a communication charge limit amount is reached depending on whether the communication terminal is connected to a network in which accounting is made according to the data amount or a network in which accounting is made according to the connection time.

By contrast, Dacloush et al merely discloses a prepaid calling card corresponding to a prepaid account that permits calling for a predetermined amount of time.

In addition, it is respectfully submitted that Dacloush et al also clearly does not disclose, teach or suggest terminating transmission/reception of the data to be transmitted/received without waiting for the instruction from the user when connected to the communication network where accounting is made according to the connection time.

Indeed, according to Dacloush et al, the accounting is performed based on the connection time. However, even according to the Examiner's own interpretation of Dacloush et al (see the bottom of page 3 and the top of page 4 of the Office Action), when a predetermined time limit has been reached, the user is warned that the calling card will soon be depleted, and an opportunity is given for the user to increase the available money

for the call. See, for example, the Examiner's citation from Dacloush et al at the top of page 4 of the Office Action: "when the call originator does not respond to the tone...the timer times out and the call is terminated, col. 4, lines 54-60" (emphasis added). In other words, as recognized by the Examiner, according to Dacloush et al the system waits for the user to respond to the tone (i.e., waits for input from the user), and if the user does not respond to the tone the call is terminated.

Clearly, this disclosure of Dacloush et al does not suggest the structure recited in independent claim 11 whereby transmission/reception of the data to be transmitted/received is terminated without waiting for the instruction from the user when a predetermined limit amount of communication charge is reached and when the communication terminal is connected to the communication network where accounting is made according to the connection time.

Thus, Dacloush et al, as recognized by the Examiner, discloses waiting for user input when a limit is reached and charging is being performed based on time, while on the other hand claim 11 explicitly recites not waiting for a user's instructions when a limit is reached and charging is being performed based on time.

It is respectfully submitted, therefore, that Dacloush et al clearly does not disclose, teach or suggest the features of the present invention as recited in independent claim 11.

Claim 13, moreover, recites means for ending communication connection immediately when terminating transmission/reception of the data to be transmitted/received without waiting for the instruction from a user, when connected to the communication network where accounting is made according to the connection time. That is, when transmission/reception of data is terminated, according to claim 13, the connection to the communication network where charging is executed based on time is ended immediately, without waiting for a user's instructions. And it is respectfully submitted that Dacloush et al also clearly does not disclose, teach or suggest the structure of the present invention as recited in claim 13.

Accordingly, it is respectfully submitted that independent claim 11 and claim 13 depending therefrom clearly patentably distinguish over Dacloush et al, under 35 USC 102 as well as under 35 USC 103.

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In view of the foregoing, withdrawal of the prior art rejections and the passing of this application to issue are respectfully solicited.

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned for prompt action.

Respectfully submitted,

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